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LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

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CEHIC, KENAN	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,387	DEPTA ET AL.	
	Examiner	Art Unit	
	Kenan Cehic	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/05/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The indicated allowability of claim 8-9, 10-16 is withdrawn in view of the newly discovered reference(s) to Nakayashi et al. (US 4,887,256) Rejections based on the newly cited reference(s) follow.

2. Applicant's arguments filed 09/06/2007 have been fully considered but they are not persuasive.

Nakayashi discloses deliberately producing a fault (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure" etc.)

3. In response to applicant's argument that the structures of Sha et al and Nakayashiki et al differ, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

4. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "different from the disconnectable nodes" (page 11 of Remarks); "in order to activate a so-called loop initialization procedure" (page 12, paragraph 2 of Remarks)) are not recited in the rejected

claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references deal with ring networks and the system of Sha et al contains multiple ring in/out ports (see column 4 lines 27-29), thus a double ring structure can be constructed. It is well known in the art to have a back up ring for failures. The motivation for adding the intentional failure is motivation to combine is to reconfigure and quickly restore communication in a communication network after a failure or abnormality has occurred.

6. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1-3,5-10, 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayashi (US 4887256) hereinafter Nakayashi.

For claim 1, Nakayashi et al discloses a data ring (see Figure 1, 2), comprising:

at least two disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) for connectinq to appliances (see column 2 lines 55-58 "computers or terminals" and Figure 2, RXG, 11-1,11-2, 14-1,15-1,14-2,11-2) and communication with one another (see column 2 line 21 "connecting said stations" and column 8 line 12 "communication between stations"), and having a device device (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) for fault handling (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node);

a monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") for monitoring (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") and driving (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") said nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13); and

an additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) connected to said monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") and allowing a fault state to be produced deliberately (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure") in said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13).

For claim 2, Nakayashiki et al. discloses serial data traffic is carried (see column 7 lines 17-20 "signal lines" and column 9 lines 5-13 "frame transmitted") using a protocol (see column 4 lines 3-5 "MAC protocol" and column 6 lines 51-55 "IEEE 802.5") including synchronization signals (see column 2 lines 65-68 "synchronized").

For claim 3,Nakayashiki et al. teaches a configuration of said additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) corresponds to a configuration (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) of said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13); and a circuit configuration (see of Nakayashiki et al. column

7 lines 4-10 "BRK" and Figure 2, 14-1, 14-2) producing a signal not complying with said protocol (see Nakayashiki et al. column 11 lines 49-52 "physical signal abnormal") and connected as said appliance (Nakayashiki et al Figure 2, 14-1, 14-2, 13).

For claim 5, Nakayashiki et al. teaches an additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) interferes with transmission of the synchronization signals (see column 2 line 65 through column 3 line 15 "polarity...periodically change ....does not change for a predetermined time period or longer") to initiate a synchronization fault in said disconnectable nodes (see column 2 line 65 through column 3 line 15 "polarity...periodically change ....does not change for a predetermined time period or longer...produces a failure").

For claim 6, Nakayashiki et al teaches wherein said disconnectable nodes (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) reinitialize (see column 6 lines 61-63 "reconfiguration" and column 7 lines 15-17 "countermeasure...reconfiguration" and column 12 "RIF..set state...all DSTs") upon a data ring fault (see column 2 line 65 through column 3 line 15 "against the failure....false failure").

For claim 7, Nakayashiki et al teaches disconnectable nodes reinitialize (see column 6 lines 61-63 "reconfiguration" and column 7 lines 15-17

"countermeasure...reconfiguration" and column 12 "RIF..set state...all DSTs") upon the synchronization fault (see column 2 line 65 through column 3 line 15 "polarity...periodically change ....does not change for a predetermined time period or longer...produces a failure").

For claim 8, Nakayashi discloses wherein said monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") holds (see column 2 lines 40-47 "informs upstream stations...by the false failure" ; nodes are still in the ring) said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) in the data ring (see column 2 lines 40-47 "informs upstream stations...by the false failure" and Figure 1, 2; nodes are still in the ring) during (see column 2 lines 40-47 "informs upstream stations...by the false failure" and Figure 1, 2; nodes are still in the ring)

the production of the data ring fault (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure") in said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13).

For claim 9, Nakayashi et al teaches a method for operating a data ring (see Figure 1, 2), which

comprises: providing a data ring having (see Figure 1, 2):

at least two disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) for connecting to appliances (see column 2 lines 55-58 "computers or terminals" and Figure 2, RXG, 11-1,11-2, 14-1,15-1,14-2,11-2) and communication with one another (see column 2 line 21 "connecting said stations" and column 8 line 12 "communication between stations"), and a monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors") for monitoring (see column 4 lines 1-2 "active monitor...stand-by monitors" and column 8 lines 34-39 "normality of the communication...confirmed") and driving (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") the disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13), and an additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) driveable (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") by the monitoring apparatus (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13 and 4 lines 1-2 "active monitor...other stations ....stand-by monitors") and producing a fault state deliberately (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure" etc.) in the disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see column 2 lines 40-47 "in the other

transmission ring...stations" and Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) ; connecting (see column 7 lines 4-8 "causing such a false or intentional failure that downstream stations....") the additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2; all stations have an RXG thus can be the additional node) by the monitoring apparatus (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13 and 4 lines 1-2 "active monitor...other stations ....stand-by monitors") after one of the least two disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes has been disconnected (see Figure 1, 50, 51; nodes have been disconnected) producing said fault state (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure" etc.) in the disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) while holding (see column 2 lines 40-47 "informs upstream stations...by the false failure" ; nodes are still in the ring) the disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) in the data ring (see column 2 lines 40-47 "informs upstream stations...by the false failure" ; nodes are still in the ring) ; and adding (see column 8 lines 18-41 "ring expansion...has risen by turning-on...connects the MAC...merged with the existing ring...") said one disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) node (see column 8 lines 18-41 "another neighbor DST") to the data ring (see column 8 lines 18-41 "ring expansion...has risen by turning-on...connects the MAC...merged with the existing

ring..."), if said one disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) node (see column 8 lines 18-41 "another neighbor DST") has been connected (see column 8 lines 18-41 "ring expansion...has risen by turning-on...connects the MAC...merged with the existing ring...").

For claim 10, Nakayashi discloses a data ring (see Figure 1, 2) comprising:

at least two disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) for connecting to appliances (see column 2 lines 55-58 "computers or terminals" and Figure 2, RXG, 11-1,11-2, 14-1,15-1,14-2,11-2) and

communication with one another (see column 2 line 21 "connecting said stations" and column 8 line 12 "communication between stations"), and having a device (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) for fault handling (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node);

a monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") for monitoring (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") and driving (see column 4 lines 1-2 "active monitor....stand-by monitors" and

column 8 line 12 "communication between stations") said nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13); and

an additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) connected to said monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") and allowing a fault state to be produced deliberately (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure") in said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13), wherein said monitoring apparatus (see column 4 lines 1-2 "active monitor....stand-by monitors" and column 8 line 12 "communication between stations") holds (see column 2 lines 40-47 "informs upstream stations...by the false failure" ; nodes are still in the ring) said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) in the data ring (see column 2 lines 40-47 "informs upstream stations...by the false failure" and Figure 1, 2; nodes are still in the ring) while (see column 2 lines 40-47 "informs upstream stations...by the false failure" and Figure 1, 2; nodes are still in the ring)

producing said fault state (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 2 lines 40-45 "intentionally causes a failure") in

said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13).

For claim 12, Nakayashiki et al. discloses serial data traffic is carried (see column 7 lines 17-20 "signal lines" and column 9 lines 5-13 "frame transmitted") using a protocol (see column 4 lines 3-5 "MAC protocol" and column 6 lines 51-55 "IEEE 802.5") including synchronization signals (see column 2 lines 65-68 "synchronized").

For claim 13,Nakayashiki et al. teaches a configuration of said additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) corresponds to a configuration (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) of said disconnectable (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13); and a circuit configuration (see of Nakayashiki et al. column 7 lines 4-10 "BRK" and Figure 2, 14-1, 14-2) producing a signal not complying with said protocol (see Nakayashiki et al. column 11 lines 49-52 "physical signal abnormal") and connected as said appliance (Nakayashiki et al Figure 2, 14-1, 14-2, 13).

For claim 14, Nakayashiki et al. teaches an additional node (see column 11 lines 49-52 "RXG...causes intentional failure" and Figure 2, character 3; all stations have an RXG thus can be the additional node) interferes with transmission of the synchronization signals (see column 2 line 65 through column 3 line 15 "polarity...periodically change ....does not change for a predetermined time period or longer") to initiate a

synchronization fault in said disconnectable nodes (see column 2 line 65 through column 3 line 15 "polarity...periodically change ....does not change for a predetermined time period or longer...produces a failure").

For claim 15, Nakayashiki et al teaches wherein said disconnectable nodes (see column 7 lines 1-2 "disconnection switch" and Figure 4, 14) nodes (see Figure 1, 3a, 3b, 3c, 3d and Figure 2, ref 13) reinitialize (see column 6 lines 61-63 "reconfiguration" and column 7 lines 15-17 "countermeasure...reconfiguration" and column 12 "RIF..set state...all DSTs") upon a data ring fault (see column 2 line 65 through column 3 line 15 "against the failure....false failure").

For claim 16, Nakayashiki et al teaches disconnectable nodes reinitialize (see column 6 lines 61-63 "reconfiguration" and column 7 lines 15-17 "countermeasure...reconfiguration" and column 12 "RIF..set state...all DSTs") upon the synchronization fault (see column 2 line 65 through column 3 line 15 "polarity...periodically change ....does not change for a predetermined time period or longer...produces a failure").

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 1-3,5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sha et al (5,508,998) in view of Nakayashiki et al. (4,887,256) and background of Sha et al (5,508,998).

For claims 1-3,5-7, Sha et al discloses at least two disconnectable nodes (see column 2 lines 8-11) adapted to connect to appliances (see Figure 2 and column 7 lines 13-17) and communicate with one another (column 7 lines 13-17) , and having a device for fault handling (see column 6 lines 52-54) ; a monitoring apparatus for monitoring and driving said nodes (see column 7 lines 1-19) ; and an additional node connected to said monitoring apparatus (see Figure 2 and column 6 line 65 to column 7 line 3). Sha et al does not disclose: allowing a fault state to be produced deliberately in said disconnectable nodes, as recited in claim 1; using serial data traffic, protocol and synchronization signals, as recited in claim 2; a circuit configuration not complying with the protocol, as recited in claim 3; a fiber channel data ring as recited in claim 4; interference causing

synchronization fault as recited in claim 5; re-initialization as recited in claim 6; re-initialization as recited in claim 7. Nakayashiki et al., from the same or similar field of endeavor does teach the above listed claim limitations.

For claim 1,Nakayashiki et al., from the same of similar field of endeavor, discloses allowing a fault state to be produced deliberately (column 11 lines 3-12, lines 49-52) in said disconnectable nodes (see column 6 line 68 through column 7 line 4).

For claim 2, Nakayashiki et al. discloses serial data traffic is carried (see column 7 lines 17-20 and column 9 lines 5-13) using a protocol (see column 4 lines 3-5 and column 6 lines 51-55) including synchronization signals (see column 2 lines 65-68).

For claim 3, Sha et al, Nakayashiki et al. teaches a configuration of said additional node corresponds to a configuration of said disconnectable nodes (see Sha et al column 6 19-23); and a circuit configuration (see of Nakayashiki et al. column 6 lines 61-63 and Figure 2) producing a signal not complying with said protocol (see Nakayashiki et al.. column 11 lines 49-52) and connected as said appliance (Nakayashiki et al Figure 2 and column 61-63).

For claim 5, Nakayashiki et al. teaches an additional node interferes with transmission of the synchronization signals to initiate a synchronization fault in said disconnectable nodes (see column 2 line 65 through column 3 line 15).

For claim 6, Nakayashiki et al teaches wherein the nodes reinitialize (see column 6 lines 61-63) upon a data ring fault (see column 2 line 65 through column 3 line 15).

For claim 7, Nakayashiki et al teaches that the nodes reinitialize (see column 5 lines 51-55 with column 6 lines 61-63) upon the synchronization fault (see column 2 line 65 through column 3 line 15).

For claim 8, Nakayashiki et al teaches wherein said monitoring apparatus (see column 4 lines 1-4 "active monitor...stand-by monitors" and column 2 lines 40-44 " station"; any station is a monitor) holds said disconnectable nodes ( ) in the data ring during the production of the data ring fault (see column 2 lines 40-44 "station...intentionally causes a failure" column 11 lines 3-11 "false failure intentionally caused", column 7 lines 4-7 "causing...intentional failure", column 1 lines 56-58 "intentionally causes a failure") in said disconnectable nodes (see column 2 lines 40-44 "station...intentionally causes a failure in the other ring" and).

Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the ring features as taught by Nakayashiki et al. into the token ring as taught by Sha et al. Both architectures employ the data ring structure thus it would be possible to combine the features such as a connecting a peripheral to ring nodes. For claims 1,2,5-7, the features can be implemented via software. For claim 3, the

additional circuit configuration could have been easily included into the data ring that Sha et al. teaches.

For claim 1, the motivation to combine is to reconfigure and quickly restore communication in a communication network after a failure or abnormality has occurred.
For claim 2, the motivation for combining the serial data traffic is so that one can only use one physical medium for data transmission; the protocol is in order to provide the a common set of rules so that devices are able to understand each other; the synchronization is so that the data received in neither lost nor jumbled.
For claim 3, the motivation to combine to have all the ring nodes equally configured, is so that we do not require a special node or agent to perform fault detection and isolation, but that a regular node in the ring can accomplish the task. The motivation for having a circuit that produces a signal not complying with the protocol is to reconfigure and quickly restore communication in a communication network after a failure or abnormality has occurred.
For claim 5, the motivation to cause a fault, using a different timing generation mechanism, in a ring node is to avoid causing a fault in a different node downstream in the node network.
For claim 6, the motivation is to bring the node into such a state so that communication in the ring network continues interrupted, when a fault occurs.
For claim 7, the motivation is to bring the node into such a state so that communication in the ring network continues interrupted, when timing related fault occurs.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sha et al (5,508,998) and Nakayashiki et al. (4,887,256), in view of Egnell (US 6,574,192 B1).

For claim 4, Sha et al and Nakayashiki et al discloses all the claimed invention as described in paragraph 4. Sha et al and Nakayashiki et do not disclose that the data ring is a fiber channel data ring. Egnell from the same or similar field of endeavor, discloses a data ring is a fiber channel data ring (see column 3 lines 25-28 "fiber ring"). Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement the data ring as taught by Sha et al and Nakayashiki et al via a fiber channel. The data ring architecture is extremely flexible and can be realized via fiber optics. The motivation is to provide higher transfer speed and better signal reliability.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayashiki et al. (4,887,256), in view of Egnell (US 6,574,192 B1).

For claim 4, Sha et al and Nakayashiki et al discloses all the claimed invention as described in paragraph 8. Nakayashiki et do not disclose that the data ring is a fiber channel data ring. Egnell from the same or similar field of endeavor discloses a data ring is a fiber channel data ring (see column 3 lines 25-28 "fiber ring"). Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement the data ring as taught by Nakayashiki et al via a fiber channel. The data ring architecture is extremely flexible and can be realized via fiber optics. The motivation is to provide higher transfer speed and better signal reliability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KC

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER